REMARKS

The Office Action dated May 30, 2008, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 1-15, 17, 19, 21-30, 32-40, and 42-72 are currently pending in the application, of which claims 1, 19, 32, 40, 51-53, 57, 60, 64, and 67-72 are independent claims. Claims 1-15, 17, 19, 21-30, 32-40, and 42-72 are respectfully submitted for consideration.

The specification was objected to for failing to provide antecedent support for the term "computer readable media." Specifically, the Office Action objected to the specification, alleging that it "fail[s] to provide proper antecedent basis for the claimed subject matter," and citing 37 C.F.R. 1.75(d)(1) and MPEP 608..01(o). The Office Action requested "Correction," but it is not clear what correction is being requested, because the Office Action does not specify what correction is required. Accordingly, Applicants respectfully traverse the objection as unclear and provide some explanation regarding support for the feature "computer readable medium" in the specification.

The specification describes that the claimed method and system can be implemented in two terminal devices, which can be seen, for example, in Figure 2. Figure 2 provides support for the "computer-readable medium" feature. Although Figure 2 does not explicit state that any of the terminal devices include a computer-readable medium, one of ordinary skill in the art would be able to recognize from the disclosure of Figure 2 that a computer-readable medium would typically be present in each of the terminal devices, because such devices frequently include computer-readable media.

Additionally, the Office Action in asserting that the specification fails to provide antecedent basis for the terms of the claim, appears to have overlooked that both 37 CFR 1.78(d)(1) and MPEP 608.01(o) state: "clear support **or** antecedent basis." (emphasis added) Thus, clear support in the specification is adequate under 37 CFR 1.75(d)(1), and there is no absolute requirement that antecedent basis be present. Accordingly, it is respectfully requested that the objection be withdrawn.

Claims 32-39 were rejected under 35 U.S.C. §112 as failing to comply with the enablement requirement. Applicants respectfully traverse this rejection.

The Office Action's basis for this rejection is stated as: "Claim 32 appears to be a single step claim." Claim 32, however, is not even a method claim. Claim 32 is an apparatus claim. Claim 32 recites a processor having various configurations.

Furthermore, although it is unnecessary that the processor be configured to do more than one thing, nevertheless, the processor of the apparatus of claim 32 is configured to "compare," to "determine," and to "communicate," which would be three steps, if what had been claimed had been a method rather than an apparatus.

Thus, the premise of the rejection of claim 32 is clearly erroneous, and the rejection must be withdrawn. Furthermore, even if claim 32 were improper for the reasons asserted in the Office Action, at least some of the claims that depend from claim 32 recite additional structures and functions (such as a configuration to "determine a difference between said current item list and said reference item list" in claim 33, an "encoder" in claims 35 and 38, or a "transmitter" in claims 34 and 36). Thus, as

erroneous as the rejection of claim 32 is, the rejection of claims 33-39 is even more erroneous. Thus, the rejection of claims 32-39 must be withdrawn.

Claims 51-52 and 67-68 were rejected under 35 U.S.C. §112 as being indefinite. The Office Action asserted that the claims were indefinite because there was no corresponding structure in the specification to correspond to the mean-plus-function recitation of the claims. Applicants respectfully traverse this rejection.

Adequate corresponding structure to the features of claims 51-52 and 67-68 is found in Figure 2 and the associated description in the specification, beginning at page 6, line 8 (see, for example, terminal devices 20 and 30 and their constituent elements). Thus, contrary to the Office Action's assertion, the Applicants have paid the price for the convenience of using the means plus function claim format, and the rejection is improper. Thus, the rejection must be withdrawn.

Claims 60-66 and 69-72 were rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicants respectfully traverse these rejections.

With respect to claims 69-72, the Office Action in essence found the recitation of "computer readable media" to be inappropriate. There is, however, no statutory or other legal basis of which Applicants are aware for the refusal to consider "computer readable media" to be within the statutory category of "manufacture." Indeed, the MPEP (by negative implication) endorses the recitation of data structures embodied in "computer-readable media" at MPEP 2106.01 (I) ("Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because

they are not capable of causing functional change in the computer.") Thus, claims 69-72 are clearly patentable under 35 U.S.C. 101, as being a "manufacture," within the meaning of the statute, and consequently the rejection must be withdrawn.

With respect to claims 60-66, although the Office Action admitted that the claims recite "an apparatus," the Office Action insisted that the claims "are directed to a program itself." This is clearly erroneous.

Claims 60-66 are directed to an apparatus, falling under the statutory category of machine. The apparatuses of claim 60 and 64 (and the claims that depend respectively from them) each include the features of a receiver and a decompressor, and consequently to suggest that claims 60-66 are directed to "a program itself," is contrary to the explicit recitations of the claims. Thus, the rejection is improper and must be withdrawn.

Claims 1-3, 14, 15, 19, 21, 22, 30-34, 40, 42-43, and 51-72 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,864,860 of Holmes ("Holmes") and U.S. Patent No. 5,579,316 of Venters et al. ("Venters"). The Office Action acknowledged that Holmes fails to disclose or suggest all of the elements of the claims, and cited Venters to remedy various deficiencies of Holmes. Applicants respectfully traverse this rejection.

Claim 1, upon which claims 2-15 and 17 depend, is directed to a method for header compression including communicating header information. The method also includes comparing a current item list containing a plurality of current items with a reference item list containing a plurality of reference items. The method further includes determining a type of classification based on said comparing of the items of the lists. The

method additionally includes using the determined type of classification to control the communication and compression of the information.

Claim 19, upon which claims 21-30 depend, is directed to a method for header compression including classifying at least one item of a current list containing a plurality of items by comparing the current list with a reference list containing a plurality of items. The method also includes, based upon the classifying of the at least one item of the current list, forming a compressed list including said at least one item. The method further includes transmitting said compressed list as a compressed header. The method additionally includes determining a type of classification based on said comparing.

Claim 32, upon which claims 33-39 depend, is directed to an apparatus including a processor configured to compare a current item list containing a plurality of current items with a reference item list containing a plurality of reference items, to determine a type of classification based on said comparing of the items of the lists, and to communicate compressed information based upon the determined type of classification.

Claim 40, upon which claims 42-50 depend, is directed to an apparatus including a processor configured to classify at least one item of a current list containing a plurality of items by comparing the current list with a reference list containing a plurality of items and based upon the classifying of the at least one item of the current list to form a compressed list including said at least one item. The apparatus also includes a transmitter configured to transmit said compressed list. The processor is configured to determine a type of classification based on said comparing.

Claim 51 is directed to an apparatus including comparing means for comparing a current item list containing a plurality of current items with a reference item list containing a plurality of reference items. The apparatus also includes determining means for determining a type of classification based on a comparing of the items of the lists. The apparatus further includes communicating means for communicating the compressed information based upon a determined type of classification.

Claim 52 is directed to an apparatus including classifying means for classifying at least one item of a current list containing a plurality of items. The apparatus also includes comparing means for comparing the current list with a reference list containing a plurality of items. The apparatus further includes forming means for, based upon the classifying of the at least one item of the current list, forming a compressed list including the at least one item. The apparatus additionally includes means for transmitting said compressed list. The classifying means is configured to classify based on a comparing of the current list with the reference list.

Claim 53, upon which claims 54-56 depend, is directed to a method for header decompression. The method includes receiving header information generated by a process in which a current item list containing a plurality of current items is compared with a reference item list containing a plurality of reference items, a type of classification is determined based on said comparing of the items of the lists, and the determined type of classification to control the communication and compression of the information. The method also includes decompressing the received header information.

Claim 57, upon which claims 58-59 depend, is directed to a method for header decompression. The method includes receiving header information generated by a process in which at least one item of a current list containing a plurality of items is classified by comparing the current list with a reference list containing a plurality of items, and, based upon the classifying of the at least one item of the current list, a compressed list including said at least one item is formed, wherein said compressed list is transmitted as a compressed header. The method also includes decompressing the received header information.

Claim 60, upon which claims 61-63 depend, is directed to an apparatus for header decompression. The apparatus includes a receiver configured to receive header information generated by a process in which a current item list containing a plurality of current items is compared with a reference item list containing a plurality of reference items, a type of classification is determined based on said comparing of the items of the lists, and the determined type of classification to control the communication and compression of the information. The apparatus also includes a decompressor configured to decompress the received header information.

Claim 64, upon which claims 65-66 depend, is directed to an apparatus for header decompression. The apparatus includes a receiver configured to receive header information generated by a process in which at least one item of a current list containing a plurality of items is classified by comparing the current list with a reference list containing a plurality of items, and, based upon the classifying of the at least one item of the current list, a compressed list including said at least one item is formed, wherein

said compressed list is transmitted as a compressed header. The apparatus also includes a decompressor configured to decompress the received header information.

Claim 67 is directed to an apparatus for header decompression. The apparatus includes receiving means for receiving header information generated by a process in which a current item list containing a plurality of current items is compared with a reference item list containing a plurality of reference items, a type of classification is determined based on said comparing of the items of the lists, and the determined type of classification to control the communication and compression of the information. The apparatus also includes decompression means for decompressing the received header information.

Claim 68 is directed to an apparatus for header decompression. The apparatus includes receiving means for receiving header information generated by a process in which at least one item of a current list containing a plurality of items is classified by comparing the current list with a reference list containing a plurality of items, and, based upon the classifying of the at least one item of the current list, a compressed list including said at least one item is formed, wherein said compressed list is transmitted as a compressed header. The apparatus also includes decompression means for decompressing the received header information.

Claim 69 is directed to a computer-readable medium encoded with instructions that, when executed on a computer, perform a process. The process includes communicating header information. The process also includes comparing a current item list containing a plurality of current items with a reference item list containing a plurality

of reference items. The process further includes determining a type of classification based on said comparing of the items of the lists. The process additionally includes using the determined type of classification to control the communication and compression of the information.

Claim 70 is directed to a computer-readable medium encoded with instructions that, when executed on a computer, perform a process. The process includes classifying at least one item of a current list containing a plurality of items by comparing the current list with a reference list containing a plurality of items. The process also includes based upon the classifying of the at least one item of the current list, forming a compressed list including said at least one item. The process further includes transmitting said compressed list as a compressed header. The process additionally includes determining a type of classification based on said comparing.

Claim 71 is directed to a computer-readable medium encoded with instructions that, when executed on a computer, perform a process. The process includes receiving header information generated by a process in which a current item list containing a plurality of current items is compared with a reference item list containing a plurality of reference items, a type of classification is determined based on said comparing of the items of the lists, and the determined type of classification to control the communication and compression of the information. The process further includes decompressing the received header information.

Claim 72 is directed to a computer-readable medium encoded with instructions that, when executed on a computer, perform a process. The process includes receiving

header information generated by a process in which   at least one item of a current list containing a plurality of items is classified by comparing the current list with a reference list containing a plurality of items, and, based upon the classifying of the at least one item of the current list, a compressed list including said at least one item is formed, wherein said compressed list is transmitted as a compressed header. The process also includes decompressing the received header information.

Applicants respectfully submit that the combination of Holmes and Venters fails to disclose or suggest all of the elements of any of the presently pending claims.

Holmes relates to compression of structured data. Specifically, as explained in columns 3-4, Holmes relates to data compression in the area of delimited text databases. For example, each row (or record) of data will contain a set of fields delimited from each other by a character. Holmes discloses comparing a field of a current record with a corresponding field of a previous record. Holmes suggests creating a compressed form of the current record based on the current row. The compressed form of the current record is the same as the current record except that, if the contents of a field of the current record are identical to that of the corresponding field in the previous record, a single character (such as a ".") is used in place of the contents. When all of the fields have been compared and (if appropriate) compressed, the compressed form of the current record is passed to the client.

In other words, in Holmes a token is sent if the contents in a current record match the contents in a previous record. Holmes appears to be designed for a situation involving structured data, not lists. For example, Holmes determines whether there is a

match, as opposed to determining and encoding a difference. Holmes also does not appear to teach a mechanism for encoding the addition, removal, or change of an item.

As many of the previous Office Actions in the prosecution had correctly acknowledged, Holmes fails to disclose or suggest, "determin[ing] a type of classification based on said comparing and using the determined type to control how the information is communicated," as variously recited in each of the independent claims.

For example, independent claim 19 recites, among other things, "classifying at least one item of a current list containing a plurality of items by comparing the current list with a reference list containing a plurality of items." These features are not taught by Holmes. For example, Holmes' comparison is not performed as part of "classifying" as claimed. As illustrated in the specification of the present application at page 2, lines 14-15, the ordinary meaning of "classifying" is "determining a type of classification." For example, the classification may be (but is not required to be) a classification as belonging to "one of plurality of transformation cases," as illustrated in the specification of the present application at page 21, lines 19-20.

Furthermore, the way the claimed "item" can be classified by comparing lists of items does not precisely correspond to the way the "fields" of Holmes are compared. For example, Holmes identifies whether the contents of a field are the same in a current record as in a previous record, as shown in column 4, lines 39-53, of Holmes. As illustrated in claim 28 of the present application, however, an "item" is distinguishable from the "content of at least one item."

The Office Action asserted that Holmes addresses such features, because Holmes, according to the Office Action, "uses the matching data fields to modify the current record by a token indicating the match ... for the purpose of alleviating the cost of maintaining and replicating structure data." Even assuming *arguendo* that the Office Action's characterization of Holmes' disclosure is correct, such teaching would not correspond to what is recited in the claims.

Specifically, the claims recite, for example, "determining a type of classification based on said comparing of the items of the list." (claim 1) As discussed above, this is not the same as simply substituting the content of an item in a list when the item is the same as a previous item, as discussed in Holmes. Thus, the alleged teaching of Holmes does not and cannot correspond to what is claimed.

The Office Action asserted that there is some similarity between the process of Holmes and the description provided in Applicants' specification at page 3, lines 2-5. Whether or not there are some similarities, there are real and important differences. Those differences are reflected in the claims, and specifically in features of the claims that are neither disclosed nor suggested in Holmes.

Furthermore, claim 1, for example, "using the determined type of classification to control the communication and compression of the information." The Office Action apparently referred the argument already addressed above, also to these features of the claims.

Even more clearly, however, Holmes does not disclose or suggest these features. Although arguably Holmes' matching is used to compressed the data analyzed in

Holmes, a determined type of classification is certainly not used "to control the communication of the information," as recited in claim 1, nor would it ever be in Holmes.

The Office Action appears partially to have recognized this shortcoming, and asserted that the communication of header information was known (citing Venters to establish such a feature). The claim, however, is not simply to communicating header information. The claim very specifically recites, "**using the determined type of classification to control the communication** and compression **of the information.**" (claim 1, emphasis added) Whether or not communicating header information is old, there is no disclosure or suggestion in the art to use the content substitution technique of Holmes to "control the communication ... of the information." Instead, the content substitution technique of Holmes only is directed to "compression of the information." Thus, Holmes is clearly far more deficient with respect to the limitations of the presently pending claims than the present Office Action has acknowledged.

A *prima facie* case of obviousness requires that all of the features of the claims be present in the prior art, and that the combination of those features in the prior would have been obvious. In this rejection, the first phase of the obviousness requirement is inadequate, because Holmes (and the remainder of the cited art) fails to disclose or suggest several features of the claims, including, for example, "determining a type of classification based on said comparing of the items of the list," and "using the determined type of classification to control the communication and compression of the information." Thus, the claims of the present application are *prima facie* non-obvious with respect to

Holmes, and it is respectfully requested that the rejection of independent claims 1, 19, 32, 40, 51-53, 57, 60, 64, and 67-72 be withdrawn.

At pages 5-6, the Office Action noted the distinctions raised above and stated disagreement. The Office Action then simply cut and pasted the statement of rejection (indeed, it seems the Office Action's comments have simply been repeated from the previous Office Action). This is not particularly helpful, since Applicants have already pointed out the problems with the rejection. Since the Office Action appears to be unable to address the arguments Applicants have presented, it is respectfully submitted that there is no reasonable basis for the maintenance of the rejection, and the rejection must be withdrawn.

Furthermore, because no response to the arguments of record distinguishing Holmes from the claims, arguably the Office Action is not complete as to all matters, as required by 37 C.F.R. § 1.104(b). MPEP 707.07(f) sets forth the Examiner's obligation to answer all material traversed. Specifically MPEP 707.07(f) states that "the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it." It is essential that the Office Action address each of the arguments presented by Applicant, so that meaningful appellate review is possible. The Office Action, however, does not meaningfully address Applicants' arguments, since the Office Action simply repeats its previous contentions without further explanation. Accordingly, if the rejection is again maintained, a response to the arguments is respectfully requested in a new Non-Final Office Action.

In such new Non-Final Office Action, it is respectfully submitted that it should be shown how Holmes' modification of an existing record involves or equates to controlling communication **and** compression of information, and not only of compression of information. If such cannot be shown (and it appears, based on the non-responsiveness of the Office Action to such distinctions, that it cannot be shown), then it is respectfully submitted that the rejection must be withdrawn, and the claims must be passed to issuance, since they clearly distinguish over the closet art that the Examiner has been able to locate.

Claims 2-3, 14-15, 21-22, 30, 33-34, 42-43, 54-56, 58-59, 61-63, and 65-66 depend respectively from, and further limit claims 1, 19, 32, 40, 53, and 57. Thus, it is respectfully submitted that each of claims 2-3, 14-15, 21-22, 30, 33-34, 42-43, 54-56, 58-59, 61-63, and 65-66 recites subject matter that is neither disclosed nor suggested in the cited art. Claim 31 was previously cancelled without prejudice or disclaimer. It is, therefore, respectfully requested that the rejection of claims 2-3, 14-15, 21-22, 30-31, 33-34, 42-43, 54-56, 58-59, 61-63, and 65-66 be withdrawn.

It should be noted that the rejection was not made based on Holmes alone, but on Holmes in view of Venters. Venters, however, was cited merely for the communication of headers. Venters generally relates to a communications technique for transmitting limited size digital data frames using macro headers to represent multiple header code patterns associated with encapsulation protocols and signal processing operations to which transmitted data are subjected.

In addition to the errors in the rejection noted above, the introduction of Venters poses an additional problem in the rejection: there is no motivation to combine Holmes and Venters. The Office Action's proposed motivation is "because such of [sic] header information would make it possible to one having ordinary skill in the art to efficiently minimize the number of bits that would otherwise have to be transmitted in each network data frame." Venters, however, opposes the Office Action's motivation, by making assertions that it can itself accomplish such an objective. Accordingly, there would be no apparent gain to **combining** the teachings of the references, and one of ordinary skill in the art would not find such motivation to combine. Accordingly, for this additional reason, the rejection should be withdrawn as clearly unwarranted.

Claims 4-13, 16-18, 23-29, 35-39, and 44-50 were rejected under 35 U.S.C. §103(a) as being unpatentable over Holmes in view of Venters and further in view of U.S. Patent No. 6,535,925 of Svanbro, et al. ("Svanbro"). The Office Action took the position that certain further limitations of the rejected claims were not disclosed or suggested by the combination of Holmes and Venters. The Office Action, therefore, cited Svanbro to remedy the deficiencies of Holmes and Venters. Applicants respectfully traverse this rejection.

Claims 4-13, 16-18, 23-29, 34-39, and 44-50 depend from claims 1, 19, 32, and 40 respectively, and recite additional limitations. The impossibility of Holmes (with or without Venters) disclosing the combination of recitations in the claims is explained above. Svanbro aggravates the deficiencies of Holmes and Venters, because it does not provide teaching, motivation, or suggestion to make a modification of Holmes (and/or

Venters) to arrive at the base features of the claims, or to make the further combination including Svanbro's own teachings with those of Holmes and Venters.

Svanbro generally relates to packet header compression using division remainders. Specifically, in columns 5-8, Svanbro describes a header compression (Figure 3), time stamp compression (Figure 4), time stamp decompression (Figures 5 and 7), and header decompression (Figure 6). Svanbro recommends using convention header compression techniques augmented by separately compressing the time stamp. With regard to the time stamp compression, Svanbro teaches that advance knowledge obtained by empirical observation can be used to reduce the number of bits needed to encode a relatively predictable time stamp in an application such as a real-time speech service.

Svanbro does not remedy the above-identified deficiencies of Holmes and Venters. Furthermore, Svanbro does not recommend itself as a modification to Holmes' system (and/or Venters' system or any combination thereof), but only motivates one of ordinary skill in the art to use Svanbro as such. The Office Action asserted that the motivation would be to "efficiently improving effect on the compression," but there is no rational or evidentiary connection between this assertion and the teachings of the references. Thus, it appears that the rejection is simply based on a conclusory assertion of obviousness. It is, therefore, respectfully submitted that the rejection is improper. Accordingly, it is respectfully requested that this rejection be withdrawn.
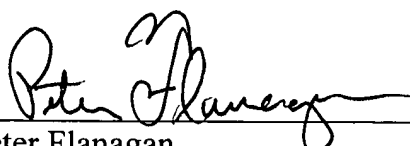
With respect to the rejection of claims 16 and 18, since those claims were previously cancelled without prejudice or disclaimer, the rejection is moot and should be withdrawn.

For the reasons set forth above, it is respectfully submitted that each of claims 1-15, 17, 19, 21-30, 32-40, and 42-72 recites subject matter that is useful, definite, and neither disclosed nor suggested in the cited art. It is, therefore, respectfully requested that all of claims 1-15, 17, 19, 21-30, 32-40, and 42-72 be allowed, and that this application be passed to issuance.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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